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AUTHOR Pullum, Stephen J.
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Noting the potential effect of print media on society, a study addressed the question of how "Time," "Newsweek," and "U.S. News and World Report" (USNWR) have presented the creation-evolution issue (particularly as taught in public schools) to its readers. Thirty-nine articles published form 1980 to 1992 were analyzed: 21 articles from "Time," 12 from "Newsweek," and 6 from USNWR. The picture that these stories painted was encouraging for evolutionists but not for creationists. Evolution was portrayed as the school of thought that individuals should adhere to, primarily because most, though not all, scientists believe in it. However, the magazines also left readers with the impression that it is "okay" to believe in a God as the driving force behind the universe. Finally, creationists were generally portrayed by the magazines as "addlebrained obstructionists who, if given their way, would do significant harm to the scientific educational process" in the United States. (Contains 38 references.) (RS)

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Where Did We Come From?:

A Communication Analysis of the Creation-Evolution Controversy as Depicted in Time, Newsweek, and U.S. News and World Report

Stephen J. Pullum, Ph.D.

The University of North Carolina at Wilmington

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Where Did We Come From?:

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as Depicted in Time, Newsweek, and U.S. News and World Report

On March 19, 1981, Arkansas governor Frank White signed into law the "Balanced Treatment for Creation-Science and Evolution-Science Act," which, as the name implies, required public schools to give "balanced treatment" to the subjects of creation and evolution when teaching science. Controversial from its inception, this law floundered when on January 5, 1982, District Court Judge William R. Overton struck it down, ruling that it violated the separation of church and state (Overton 3).

In July of 1981, Louisiana lawmakers eagerly passed a similar bill. Like its Arkansas counterpart, it, too, was short lived. In November of 1982, federal judge Adrian Duplantier ruled that Louisiana's creationist law was also unconstitutional. It was not until June 19, 1987, however, that the Supreme Court, by an 7-2 margin, administered a coup de grace, upholding the lower court's decision. Not since the Scopes Trial of 1925 in Dayton, Tennessee, has the creation-evolution controversy in this country reached such a fevered pitch as it did during the early 1980s. Like any national controversy, the creation-evolution debate gave rise to a foray of articles in the popular press, including both newspapers and magazines.

For the communication scholar, this is significant, for the press has tremendous potential to sway readers to one side of an issue or the other. Or as Corcoran suggests, "the media help define, not merely reproduce, 'reality.'" "[T]hey actively make things mean through their processes of selecting and structuring" (163). Similarly, Black points out the power of print media to "develop [their] control over our responses" (185). Clearly, the

printed word, like the spoken, helps to shape reality for its readers. Given the potential effect of print media on society, the purpose of this essay is to address the question of how Time, Newsweek, and U.S. News and World Report (USNWR) have presented the creation-evolution issue to its readers. The purpose of this essay is not--to borrow the words of Stempien and Coleman--concerned with "the relative merits of creationist or evolution as theories" (170) per se. Rather, it merely seeks to analyze the stand that the above three periodicals have taken on this controversial issue from 1980 to the present. In all, twenty-one articles were analyzed from Time, twelve articles were analyzed from Newsweek, and six articles were analyzed from USNWR.

According to Ulrich's International Periodicals Directory 1992-93 (2230-36), Time has a circulation of 4,248,565, Newsweek has a circulation of 3,057,081, and USNWR has a circulation of 2,351,313. They are the most published "News and Opinion" magazines in America. Corcoran makes a couple of interesting observations about these publications. First, he suggests that they "reach a [readership] that is not only large but also influential in terms of opinion-leadership." At least Time and Newsweek have a readership that is more than five times the size of their actual circulation since they are passed along from person to person once they are printed. In fact these three magazines are cumulatively read by more people than the combined daily audiences of the "three network television news programs." Second, Corcoran observes that compared to television news viewers, those who read newsmagazines are "better educated, more likely to be employed in prestigious jobs, and more affluent". Many, he suggests, are "from the national elite," leaders in business, politics, media, and other types of occupations. "[B]ecause of the "unique opinion-leading potential of their 'upscale' readers," contends Corcoran, "newsmagazines deserve more attention from

scholars" (163).

Several communication researchers have addressed the creation-evolution controversy from various angles since the Arkansas and Louisiana laws were ruled unconstitutional. Lessl, for example, analyzed the response of Neo-Darwinists to the "heretical" (19) challenges of creationists as found in seventy scientific magazines during the period immediately following the passage of the Arkansas "Balanced Treatment" Act. He discovered that the rhetoric of evolutionary scientists, who were "simply talking among themselves," served five functions: (1) to call attention to an immediate crisis "capable of undermining the political support that institutionalized science has come to enjoy" (23), (2) to reprove "internal deviants" who hold creationist beliefs, thereby ritualistically relieving "anxieties about what is distant and beyond control" (24-25), (3) to "reaffirm the authoritative underpinnings of the scientific method" (27), (4) to establish the "boundaries between science and non-science" (28), and (5) to create "a renewed sense of solidarity and social importance" for scientists (28).

Stempien and Coleman conducted a content analysis of debates held between creationists and evolutionists of the early 1980s in an attempt to offer "some possible reasons for the persuasive successes of the creationists" (170) in the court of public opinion. They concluded that "creationists employed techniques geared toward influencing ordinary folk" whereas evolutionists "were hampered by their reliance on a style of articulation and argumentation required by the narrow scholarly concerns of the academic community" (173). In short, evolutionists relied "on Elite Folk" methods of persuasion, an approach which is consistent with scientific tradition but of dubious persuasive effectiveness before a general audience." Furthermore, suggested Stempien and Coleman, evolutionists resorted to "Name Calling" and "[came] across as dry, stuffy and unintelligible" (173).

After analyzing both "the local press of Arkansas" and regional newspapers from the "geographical quadrants" of the United States between March 1, 1981 and March 1, 1982, Taylor and Condit concluded that "in general, McLean v. Arkansas, through its journalistic mediation, worked indirectly to legitimate the populist discourses of creationist" (297). In other words, as McLean v. Arkansas "evolved in the mass media, creation science appeared as the equal competing theory to evolution that the creationists' claimed it to be" (306). Taylor and Condit found newspapers such as The New York Times, Los Angeles Times, New Orlean's Times-Picayune, The Milwaukee Journal, and Arkansas Gazette siding with creationists' cry for equal time in public school science classes.

More recently, Taylor went on to explore "a rhetorical account for the public appeal of creationist." He argued that "creationism endures not only in spite of the response from the traditional scientific community, but also, in part, because of that response" (278). One reason scientists often fail to persuade those outside the academy, insisted Taylor, is because of their over-reliance on the Popperian criterion of falsification. Stated differently, while creationism may be non-falsifiable and hence, non-scientific, the use of this criterion "'levelled' creationist and evolutionary discourses and implicitly warranted calls for their balanced treatment in the public schools" (284) because creationists argued that evolution itself was also non-falsifiable. Furthermore, reliance on "Popperian rhetoric" argued Taylor "excluded a potential response which is both scientifically legitimate and consonant with the dominant folk epistemology: directly countering the bizarre empirical claims that creationists do make" (284). Since, in general, evolutionists fail to do this, they are "in many ways, a greater threat to science than creationism could ever hope to be." Simply put, science "distanced itself from the broader social contexts which actively constrain the nature and

functions of contemporary science" (288).

Given what we already know about this issue from a communication perspective, what, then, has been the position of the news magazines toward creation and evolution for the past twelve years? In what follows, I shall argue that, contrary to Taylor and Condit's findings, news magazines have not only upheld evolution as the preferred alternative to creationism, but that they are also willing to grant the possibility--indeed the probability--that there is a supernatural force behind the universe. Moreover, they have traditionally criticized creationists while occasionally featured prominent evolutionists.

Upholding Evolution as a Belief System

Perhaps the most salient feature of news magazines throughout the 1980s in regard to the creation-evolution controversy is their support of evolution. A cursory reading of almost any article about the origin of the universe would reveal this much. In an article as recent as October of 1992, for example, Time suggested that the recent invention of a "relatively new genetic-engineering method," called "polymerase chain reaction," could give "researchers another perspective on how evolution has changed a given species" ("Tattletale Termite" 24). Another article written a few months earlier suggested that a comet or asteroid collision with the earth some 370 million years ago killed off about seventy per cent "of all marine species on earth." This theory, suggested Time "strengthens the idea that evolution owes much to giant rocks falling from space" ("Space Invaders" 20). Other articles suggested that the world was created some fifteen billion years ago as the result of "the Big Bang" and that life evolved from there (Toufexis 66). Articles similar to these could be found in Time throughout the 1980s. In fact, Time has given more coverage to the topic of evolution than either Newsweek

or USNWR combined.

But Time was not the only magazine that supported the evolutionary model of life. Both Newsweek and USNWR did as well. Newsweek, for example, in an article published in 1988 entitled "The Search for Adam and Eve" suggested that "scientists claim to have found our common ancestor--a woman who lived 200,000 years ago" from which other women evolved (Wallace 46). In another article written eight years earlier, Newsweek reported that "the oldest common ancestors of man and apes yet discovered" were creatures "the size of house cats" that lived "thirty million years ago" in the Faiyum Depression just southwest of Cairo ("A Catty Ancestor" 76). In a different article entitled "Is Man a Subtle Accident?" Newsweek suggested that human beings did not gradually evolve as Darwin originally proposed. Rather, they "may have evolved by random leaps." "Evidence from fossils now points overwhelmingly away from the classical Darwinism which most Americans learned in high school: that new species evolve out of existing ones by the gradual accumulation of small changes, each of which helps the organism survive and compete in the environment." Newsweek went on to say, "Increasingly, scientists now believe that species change little for millions of years and then evolve quickly, in a kind of quantum leap" (Adler 95). What is important here is not the type of evolution that was suggested but that evolution was put forth as an explanation of how humans came to be in the first place.

One could see the evolutionary stance of USNWR in an eight-page cover story that appeared as recently as June of 1992. The article, entitled "Climate and the Rise of Man" suggested that the earth is "hundreds of millions of years" old and that "scientists are beginning to realize that the gyrations of . . . climactic dance have had a major impact on the evolution of the human species" (Allman 61). One thing that makes this article so compelling

is not so much the information contained in the story but the various color pictures that accompany it. Indeed, this article is replete with pictures of what the climate of the earth was like and what earliest humans might have looked like as they evolved through the millennia. In other words, seeing is believing. Elsewhere, after asking, "Where did our kind, Homo sapiens, come from?" USNWR suggested, "Nearly all anthropologists agree that the human lineage began some 2.5 million years ago with a creature known as Homo habilis, a hominid that walked upright, had a brain larger than that of any ape and was the first to use stone tools" (Allman, "Who We Were" 53). The article concluded by suggesting that humans are "Latecomers to the planet" who are "an evolutionary 'work in progress' whose final outcome is yet to be determined (Allman, "Who We Were" 60).

In 1988, USNWR also reported that the "Qafzeh cave dwellers" who inhabited caves in hills near Nazareth were direct ancestors of modern man who lived some 92,000 years ago ("The Telltale Fires of the Qafzeh Caves" 9) In 1986, USNWR reported that genetic clues found in blood cells "are helping scientists determine where and when the human species began." Relying on the work of Emory University biochemist Douglas Wallace, USNWR suggested that "the first human being originated" in eastern Asia (Carey 58).

All of the above examples merely serve to illustrate how Time, Newsweek, and USNWR have supported the evolution of life in their articles throughout the '80s and early '90s. One thing that makes these magazines so persuasive is the fact that they often appeal to scientists as authorities on the subject. This type of proof can have a significant influence upon a reader, especially one who is well educated and who understands the respected position of science in colleges and universities.

Granting the Possibility of the Supernatural

Although the above three news magazines have upheld evolution as a model of human origin and development, they are careful not to rule out the possibility of a supernatural cause behind the universe. This is readily seen in a recent issue of Time. In a cover story entitled "Science, God and Man," Time argued that "some of the epic narrative of contemporary science . . . lend themselves to religious interpretation," in other words, to the idea that God is behind it all. In support of this assertion, the article insisted that the universe is a "paradox" that "comes from stepping back and looking at the big picture: an overarching pattern . . . suggesting, to some scientists, at least that there is more to this universe than meets the eye, something authentically divine about how it all fits together" (Wright 40).

Consistent with popular magazines' dominant use of testimonials and authority figures, the above article went on to cite several well-respected scientists to support its contention that there is probably a supernatural force behind the universe. One such example was the noted physicist Dr. Paul Davies, who reportedly said, "The very fact that the universe is creative, and that the laws have permitted complex structures to emerge and develop to the point of consciousness . . . is for me powerful evidence that there is 'something going on' behind it all" (Wright 43). Another source was the eminent biologist Dr. William D. Hamilton of Oxford University, "considered by some to be the most important evolutionary biologist of the second half of this century." "The point is simply," suggested Time, "that one of the great scientific minds of our era [Hamilton] believes that the ultimate questions remain unanswered, that science may be unable to answer them, and yet that science does help us mull them over . . . . Then quoting Hamilton directly, Time recorded, "The theological possibility is still

certainly alive" (Wright 44).

Throughout the article one could read comments such as "careful analysis suggests that even a mildly impressive living molecule is quite unlikely to form randomly" (Wright 40). Perhaps the most definite statement, however, that Time was willing to grant the possibility of a supernatural force could be found in its statement, "If you admit that we can't peer behind the curtain, how can you be sure there's nothing there?" (Wright 44).

In a parallel article to Wright's in the same issue of Time entitled "Galileo and Other Faithful Scientists," Ostling implicitly and specifically argued for the existence of God when he quoted Yale physicist Henry Margenau, co-editor of Cosmos, Bios, Theos, a book written by "60 world-class scientists, 24 Nobel prizewinners among them." Margenau was quoted as believing "that there is 'only one convincing answer' for the intricate laws that exist in nature: creation by an omnipotent, omniscient God." Ostling also pointed out that while many scientists are still "skeptics," "others are true believers--not just in some mysterious cosmic force but in the God of the Bible or the Koran" (42). Ostling also dropped several prominent names in suggesting the possibility of God, among them "Harvard astrophysicist Owen Gingerich, an Evangelical Protestant," who was quoted as saying, "I passionately believe in a universe with purpose though I cannot prove it" (43).

Although never referring specifically to God per se, the June 13, 1988 issue of Newsweek implied that how the universe began is not really as certain as cosmologists would like for us to believe. In other words, the article implied the possibility of a supernatural first cause. For example, after reporting and analyzing several theories proposed by cosmologists as to the origin of the universe, Newsweek insisted, "For better or worse cosmologists have cast their lot with the laws of physics and not with Einstein's friend, the Old One, the Creator." Then

Newsweek argued that "perhaps" this were right, but that maybe it were not. "Perhaps someday Davis and the others [cosmologists]," argued Newsweek, "will be able to tell us how it all happened. And as for why it did? Cosmologists are no closer to knowing that than the rest of us" (Begley 65). The implicit message, of course, was that no one really knows for sure how the universe came into being but that "perhaps" Einstein's belief in "the Creator" was the correct one.

U.S. News and World Report has also made room for the possibility of a supernatural. In a December 23, 1991 cover story entitled "The Creation," writer Jeffrey Sheler suggested that although Darwin's theory--"that human beings evolved from lower life forms over millions of years"--has been the dominant explanation of the origin of life for scientists, "most Americans" share the view that the world is a product of "a divine creator" (57).

Although, ostensibly, one might think that Sheler merely described in his article the relationship between science and religion in western thought, the implicit suggestion was that God could exist. For example, Sheler quoted the noted physicist Paul Davies as saying, "My feelings about God and the universe have come about entirely through my science. I hesitate to use the word 'God,' but in my studies of the universe I have come to the conclusion that there is some purpose to it" (60).

Elsewhere, Sheler introduced the reader to the American Scientific Affiliation (ASA), "composed of about 2,300 scientists who identify themselves as evangelical Christians." These scientists "support a more conventionally scientific approach to the question of origins . . . yet affirming a belief in God as creator and sustainer of life" (60). Then Sheler quoted molecular biologist and executive director of ASA Robert L. Hermann: "A lot of educated people in the sciences see the two [evolutionary processes and God] as perfectly compatible."

Sheler used similar quotations of other scientists in the article.

So what is the upshot of employing such quotations? While Sheler tried to maintain neutrality, clearly, such quotations leave the reader feeling that not only is it okay to believe in the supernatural but that it is preferable to believe in a God because many well-known scientists do. In other words, people in the know believe in a force external to the universe.

Attacking Creationists and Creationism in the Meantime

While the above magazines supported the possibility of a supernatural force, they had little patience with creationists. In an essay entitled "Dissent, Dogma and Darwin's Dog," Time, for instance, bemoaned the fact that in November of 1989, the California board of education "faltered under pressure from religious right-wingers and overruled the state's curriculum commission to alter a guideline for the teaching of evolution in California's schools." Blamed for the demise of scientific education in California, creationists were referred to as "religious folk" and "extremists" who caused the "contamination of the teaching of science by irrelevant philosophies [and] prejudices." Creationists were ridiculed for the "unwelcomed precedent" set by California law. "Scientific judgments have been alloyed," suggested Time. "The camel's nose is now in the tent" (84).

Elsewhere, Time presented creationists as being on the "attack" and engaged in a "foray" against evolutionists (Angier 70). Creationists were also depicted as vacuous. After Kelly Segraves, a creationist, sued the state of California in 1981 for violating the religious freedom of his children by not allowing creationism to be taught in public schools, Time argued that "Creationist arguments about evolution are scientifically flimsy, to say the least. But they are based on a sincere, though often appallingly distorted and overstated, conviction that

evolutionary doctrine . . . deprives man of a sense of . . . moral responsibility" (Pierce 82). In the same article, creationists were criticized for having done "almost no original research" in science. "In launching their attacks on evolution, they tend to pick over data accumulated by science" (Pierce 81). In short, Time has shown little use for creationists and "Bible Belters" (Willwerth 118).

On the other hand, Time praised the Harvard paleontologist Stephen J. Gould. In a feature article on him in 1983, for example, Time called Gould a "gifted" Harvard scholar. Both he and his friend Carl Sagan, the well-known cosmologist, have become "a superstar of science." Gould had turned "a musty, bone-littered, backbiting discipline [paleontology] into the most exciting of sciences." His book The Measure of Man, referred to as "His latest chrestomathy" was hailed as "an indispensable bridge" between the popular and scientific communities in this country. In his books, suggested Time, Gould "has shown that he can bat out complex ideas with all the grace of his childhood hero, Joe DiMaggio." Time also pointed out that "Gould's finest hour came in 1981 when he appeared in an Arkansas courtroom in a modern rerun of the 1925 Scopes 'monkey' trial. His testimony helped persuade the judge to throw out a law that required the teaching in the state's public schools of Creationism" (Golden 41).

Although never featuring prominent scientists like Gould per se, like the other magazines, Newsweek had little use for creationists. Viewed as an extremist position, creationism was referred to as "a rigid fundamentalist creed" that collided "head-on with the demands of a pluralistic democracy." Creation science, often placed in quotation marks to suggest that it is a contradiction of terms, was criticized as "a transparent promotion of religion" and "a subterfuge to bring the Bible back to class" (Martz 23). In another article, creationists were

ridiculed for taking "the literal wording of Genesis and attempt[ing] to find scientific support" ("Creation Science Loses a Round" 75). In reference to the 1981 courtcase Segraves v. State of California, mentioned above, Newsweek, echoed a similar criticism of creationists by Time, namely that "the camel's nose has poked under the tent" (Gwynne 67).

Despite the fact that one has to look hard to find it, criticism of creationists can also be found in USNWR. In reference to the defeat that creationists suffered in 1987 when the Supreme Court ruled the Louisiana equal treatment law unconstitutional, USNWR quoted Albert Shanker of the American Federation of Teachers as saying the Supreme Court had "rescued the nation's public-school students from narrow-minded fanatics trying to impose their beliefs on others." Sounding much like Time, USNWR said that creationists were "activists" who figuratively carried "weapons with which to flail the Supreme Court" (Gest 12). Creationists were said to have engaged "more in polemics than in rigorous scientific inquiry" (Sheler 60). Clearly, while not a salient topic in USNWR, a less-than-favorable opinion of creationists and their doctrine emerges.

Conclusion

This essay has attempted to illustrate the way Time, Newsweek, and USNWR have dealt with the creation-evolution controversy in this country during the past twelve years. Even though not many articles appeared on the topic in any given year, several stories emerged over the past decade as a whole. The picture that they painted was encouraging for evolutionists but not for creationists. Evolution was portrayed as the school of thought that individuals should adhere to, primarily because most, though not all, scientists believe in it. For much the same reason, these magazines left one with the impression that it is okay to believe in a God as

the driving force behind the universe. Finally, creationists were seen as addlebrained obstructionists who, if given their way, would do significant harm to the scientific educational process in this country.

What will the remainder of the '90s bring? Will there be as many articles in the above magazines on creation and evolution as there were in the 1980s? Moreover, what stance will these magazines take? It is difficult to know what future issues will discuss, but there is little, if any, reason to expect a change in the status quo. Ultimately the answers to these questions rest on how hotly debated creation and evolution become in the coming decade. It is hard to imagine that the question of where we came from will be any more consuming as it was in the 1980s. In the final analysis, Time will tell.

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